CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (withdrawn - currently amended). A method for vapor phase deposition, which comprises:

providing a process space having a top side and a bottom side;

vapor phase depositing components contained in a process gas flowing along a main flow direction between the sides of the process space laterally past and onto a plurality of semiconductor substrates disposed one above another at a short distance to form a stack in the process space; ~~and~~

during the step of vapor phase depositing, changing the main flow direction by 180° at least once while continuing flowing laterally past the stack; and

detecting a quantity and/or a distribution of the components deposited onto the semiconductor substrates with a measuring unit.

Claim 2 (withdrawn). The method according to claim 1, wherein the step of changing the main flow direction is performed by reversing the main flow direction.

Claim 3 (withdrawn). The method according to claim 1, which further comprises: orienting the main flow direction parallel to an axis of symmetry of a plurality of semiconductor substrates in the process space.

Claim 4 (withdrawn). The method according to claim 3, wherein the axis of symmetry is a rotation axis or a rotary mirror axis.

Claim 5 (withdrawn). The method according to claim 1, which further comprises: at least partially removing the process gas from the process space before performing the step of changing the main flow direction.

Claim 6 (withdrawn). The method according to claim 5, wherein the step of at least partially removing the process gas is achieved by performing at least one step selected from a group consisting of reducing a supply of the process gas into the process space, extracting the process gas from the process space, and flushing the process space with an inert gas.

Claim 7 (withdrawn). The method according to claim 1, which further comprises: after performing the step of changing the main flow direction, providing the components with a different composition and/or a different concentration in relation to before performing the step of changing the main flow direction.

Claim 8 (withdrawn). The method according to claim 1, wherein the components react chemically with the semiconductor substrate.

Claim 9 (withdrawn). The method according to claim 1, which further comprises: performing the step of vapor phase depositing below atmospheric pressure.

Claim 10 (withdrawn). The method according to claim 1, wherein the step of changing the main flow direction is performed in accordance with a variable time pattern.

Claim 11 (withdrawn). The method according to claim 1, which further comprises: while performing the step of vapor phase depositing, detecting a quantity and/or a distribution of the components being deposited onto the semiconductor substrate.

Claim 12 (withdrawn). The method according to claim 1, which further comprises: while performing the step of vapor phase depositing, detecting a quantity and/or a distribution of the components being deposited onto the semiconductor substrate while online.

Claim 13 (currently amended). A furnace for vapor phase depositing components contained in a process gas onto a plurality of semiconductor substrates, the furnace comprising:

a process space for receiving the semiconductor substrates disposed one above another at a short distance to form a stack, said process space having a top side and a bottom side;

a first feed/discharge line connected to said process space at said bottom side;

a second feed/discharge line connected to said process space at said top side;

a device for producing a process gas flow, said device for producing said process gas flow connected to said first feed/discharge line and/or said second feed/discharge line

causing the process gas to flow laterally past the stack defining a main flow direction;

a heating device; ~~and~~

a regulating unit for regulating a magnitude of said process gas flow and for changing the main flow direction by 180° while continuing to flow laterally past the stack; and

a measuring unit for detecting a quantity and/or a distribution of the components deposited onto the semiconductor substrates.

Claim 14 (canceled).

Claim 15 (previously presented). The furnace according to claim 13, wherein said regulating unit is configured for changing the main flow direction of said process gas flow at intervals in accordance with a variable time pattern.

Claim 16 (canceled).

Claim 17 (currently amended). The furnace according to claim ~~16~~ 13, further comprising: a control unit connected to said

measuring unit, said control unit for an online control of said device for producing a process gas flow.

Claim 18 (previously presented). The furnace according to claim 13, wherein said process gas flow is unobstructed in said process space.

Claim 19 (previously presented). The furnace according to claim 13, wherein said process space has no obstructions or guides therein for said process gas flow.

Claim 20 (previously presented). The furnace according to claim 13, wherein said regulating unit causes said main flow direction of said process gas flow to be unidirectional within said process space.

Claim 21 (withdrawn). The method according to claim 1, which further comprises guiding the process gas in the main flow direction without guides or obstructions in the process space.

Claim 22 (withdrawn). The method according to claim 1, wherein the main flow direction of the process gas within the process space is unidirectional.

Claim 23 (withdrawn). The method according to claim 1, which further comprises passing the same process gas through the process space before and after the step of changing the main flow direction.

Claim 24 (withdrawn - currently amended). A method for vapor phase deposition, which comprises:

vapor phase depositing components contained in a process gas flowing along a main flow direction laterally past and onto a plurality of semiconductor substrates disposed one above another at a short distance to form a stack in a process space;

during the step of vapor phase depositing, changing the main flow direction by 180° at least once while continuing flowing laterally past the stack; ~~and~~

passing the same process gas through the process space before and after the step of changing the main flow direction; and

detecting a quantity and/or a distribution of the components deposited onto the semiconductor substrates with a measuring unit.